DOCUMENT RESUME

ED 411 443 CE 074 769

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TITLE	Evaluation of the Computer Based Registration System at Lakeshore Technical College.
PUB DATE	1996-08-00
NOTE	46p.; Doctor of Education Practicum Report, Nova Southeastern University.
PUB TYPE	Dissertations/Theses - Practicum Papers (043) -- Reports - Evaluative (142)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Admissions Counseling; Adult Education; *Adult Students; *College Admission; *Computer Oriented Programs; *Enrollment; Focus Groups; *Needs Assessment; Program Effectiveness; Program Evaluation; School Registration; Technical Institutes; Two Year Colleges
IDENTIFIERS	*Lakeshore Technical College WI

ABSTRACT

A study explored whether the intake process met the needs of employed adults seeking upgrade training market segment at Lakeshore Technical College, Wisconsin. Study procedures included the following: a literature review, criteria identification, drawing a sample of students, organization and conducting of focus groups and collecting data, and recommendation development. The population consisted of 123 students enrolled in the rapid delivery program; 6 participated in 2 focus group sessions. Six customer needs were identified using the Affinity Process: simple, reliable, and complete communication and information; timely services; flexible financial options for services in the bookstore, registration, and financial aid; simple processes; and access to services, staff, and information when needed. The descriptive phase of the Quality Function Deployment Process was used to correlate the needs against the functions in the intake process. Results showed that the functions of enrollment and financial aid were adequately meeting students' needs and the functions of registration, counseling, and bookstore were not. The following recommendations were made: clearly define and analyze current processes to determine if they were being followed, develop implementation plans for changing current processes, and create new processes where current ones were not customer friendly. (Appendixes contain 16 references, description of quality function deployment, focus group questions, and recommendations.) (YLB)

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EVALUATION OF THE COMPUTER BASED REGISTRATION SYSTEM AT LAKESHORE TECHNICAL COLLEGE

Computer Information Networks

Michael A. Lanser

Lakeshore Technical College

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A practicum report presented to Programs for Higher Education in partial fulfillment of the requirements for the degree of Doctor of Education

Nova Southeastern University

August, 1996

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Abstract of a practicum report presented to Nova Southeastern University in partial fulfillment of the requirements for the degree of Doctor of Education

EVALUATION OF THE COMPUTER BASED REGISTRATION SYSTEM AT LAKESHORE TECHNICAL COLLEGE

by

Michael A. Lanser

August, 1996

Systems and processes that serve students were designed with the traditional student in mind. The problem was that there was no evidence that the current intake process met the needs of nontraditional students in the employed adult seeking upgrade training market segment at Lakeshore Technical College.

The purpose of the project was to determine whether the intake process met the needs of students in the employed adult seeking upgrade training market segment. There is one research question for the study. Does the intake process meet the needs of current students at Lakeshore Technical College?

Six procedures were used in the study. Procedures included the review of literature, criteria identification, drawing a sample of students, organizing focus groups, conducting focus groups and collecting data, and the development of recommendations.

Three conclusions were reached as a result of project. First, it was concluded that overall the intake process is

meeting customer. However, it was concluded that the specific process of enrollment and financial aid are meeting customer needs and that the processes of registration, counseling, and bookstore need improvement.

Four recommendations were reached including developing implementation plans for each recommendation, conducting the same study on other market segments of the college, clearly defining current processes and analyzing them to determine if they are being followed and developing implementation plans for changing current processes and creating new processes where current processes are followed but are not customer friendly

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Chapter 1

INTRODUCTION

Lakeshore Technical College (LTC), one of Wisconsin's 16 Technical Colleges and part of the Wisconsin Technical College System (WTCS), operates under a shared governance concept with the state and local boards equally responsible for setting and administering policies. The college offers associate degree and technical diploma programs, and adult and continuing education courses and is accredited by the North Central Association of Colleges and Schools (NCA). LTC received a ten-year accreditation from North Central in 1991.

The college serves a diverse customer market and has identified four market segments including (a) high school graduates, (b) employed adults seeking professional development/changing careers, (c) unemployed adults entering or re-entering the workforce, and (d) employer requested educational opportunities for their employees. A description of these market segments is included in Appendix A. High school graduates were considered to be the traditional market and therefore, systems and processes were designed to meet their needs. In recent years the college has experienced a shift from the traditional high school graduate market to the other three markets. The LTC Strategic plan (see Appendix B) recognizes this shift and has adopted strategies to help the organization respond. Flexibility and accessibility of systems and services are critical if the needs of the changing student base are to be met.

Nature of the Problem

Systems and processes that serve students were designed with the traditional student in mind. LTC has identified a system of Education, of which Student Intake is a specific component. A number of functions are involved in Student Intake including registration, enrollment, financial aid, counseling, and financial aid. Now that customer markets at the college have shifted, the systems and processes supporting student intake may be out of alignment with current student needs. The problem was that there was no evidence that the current intake process met the needs of current students. LTC's computerized registration system facilitates students through the intake process. The registration process had not changed significantly over the years, however, the student body has. The shifting among the market segments means the college is now serving more part-time students in post-secondary programs, working adults taking upgrade training, and business and industry clients. Because the current intake processes were designed for traditional full-time students, student needs were not being met.

Purpose of the Study

The purpose of the project was to determine whether the intake process met current student needs. The evaluation results will provide information to make future system changes focused on serving part-time working adults in a customer friendly way.

Significance to the Institution

Customer focus, continuous improvement, and employee involvement, are the three components of LTC's Total Quality

Leadership philosophy. An evaluation of the intake process will help the college determine if the needs of current students are being met. Information from the evaluation can be used to set the direction for future system changes. In addition, the process can be used by other services areas at the college to evaluate if their services are meeting customer needs.

Relationship to Seminar

This practicum is directly related to the Computer and Information Networks seminar in that it involves the evaluation of a computerized registration system. The completion of this practicum will require study in systems analysis and evaluation.

Research Question

There is one research question for the project. Does the intake process meet the needs of current students at Lakeshore Technical College?

Definition of Terms

For the purposes of this practicum, the following terms need clarification.

Intake. The processes involved in enrolling, registering, and awarding financial aid to students wanting to attend at Lakeshore Technical College.

Quality Function Deployment. "A system for designing product or service based on customer demands and involving all members of the producer or supplier organization" (King, 1989, p. 1-9).

Reengineering. "The process used to make sure the college's systems are in service to its clients first, and to the institution second" (Oberg, 1995, p.1).

Chapter 2

REVIEW OF THE LITERATURE

Introduction

The literature review includes topics on registration systems, reengineering, influence of technology, and focus groups. Nontraditional customers place new demands traditional registration systems. Technology provides new opportunities to reengineer systems to meet customer needs and focus groups provide a mechanism to determine customer needs.

Registration Systems

Registration systems, at colleges are a critical process. Each person choosing to take a course ultimately uses the system. The process of registering represents a transaction between the student and the college. "Transactions occur when individuals come into contact with organizations and something is exchanged" (Oberg, 1995, p. 1). Oberg states that sometimes transactions at colleges lose their focus and "take on lives of their own," serving not the person coming in contact with the organization, but the organization. Customers are demanding better service and competition for students has educational institutions paying greater attention to customer demands.

Educational institutions have been "under siege from their customers, who have been demanding lower costs and better service" (Block, 1995, p. 6). According to Block (1995) institutions of higher education have been insulated from pressure in the marketplace, until now (p. 6). A report by the American College Testing Foundation shows that graduation rates

are at the lowest in more than 10 years and that the drop out rate at two- and four-year public and private institutions rose to 26.9 %. Reasons cited include rising tuition, increased job opportunities, a growing economy, and concerns about student aid. Additionally, the report showed that nontraditional students now make up more than 40% of enrollment (More college freshmen quitting after first year, 1996, p. D1).

Registration systems are key to providing good customer service. Tullar (1981) developed an evaluation process for improving customer service that included "a unique instrument (opinionnaire), a four-component sampling technique, a procedure for applying the instrument, and a method for treating, analyzing, and interpreting resulting data" (pp. 2-3). "The evaluation system uses perceptions of faculty, students, administrators, and student affairs practitioners to provide data concerning the state of major campus student service functions" (Tullar, 1981, p. 30).

Young (1981) recognizes the importance of the registration process and indicates it plays a key role in faculty advising.

> Facilitating student registration is typically a major function of an academic advising system. Students' contacts with advisors often focus on registration activities, and the advising system frequently is viewed primarily as an adjunct to the registration system. Registration, however, either, can facilitate or obstruct the broader goals of academic advising, which reach beyond course selection and program planning. Most important, as the registration process increasingly becomes mechanized, it must remain sensitive to needs of students and their advisors and it must facilitate good advising. Therefore, a model for effective advising should include both evaluation of how well the registration process serves academic advising goals and means of improving that process when it does not. (p. 19)

Questionnaires and interviews were used to identify concerns related to the registration process at Western New England College (Young, 1981, p. 19). Young makes a very important finding in that even though registration procedures may not recognize a difference among various types of students their advising needs are different (p. 22). Western New England College has registration systems for different types of students and their evaluation of the registration process led to several changes (Young, 1981, p. 22).

Reengineering

"Reengineering is the process used to make sure the college's systems are in service to its clients first, and to the institution second" (Oberg, 1995, p. 1). Hammer and Champy in their book Reengineering the Corporation set a new vision on how companies should be organized and managed. Reengineering is a radical change from current processes. Old structures, titles, and processes are disbanded and reorganized according to market demands and take full advantage of current technology.

Discontinuous thinking is at the heart of reengineering (Hammer & Champy, 1993, p. 3). This means getting rid of outdated rules and changing the assumptions upon which old business practices were built. It is an all or nothing proposition that requires a vision and strong leadership to enlist the employees in the effort.

Pritchett states that "reengineering means asking how we reinvent a process to accomplish our purpose while dramatically improving cost, quality, service, and speed" (1995, p. 1). To

gain these improvements involves change. Changes may be required in "the job, the organizational structure, or the tasks required of the individual" (Prichett, 1995, p. 1).

Guskin (1994) states:

> . . . three major forces will alter our colleges and universities over the next five to ten years, whether we like it or not: 1) The high costs associated with undergraduate education in the public and private sectors will give rise to overwhelming pressures to cut back expenses rather that increase tuition. 2) There will be an ever-growing demand from many sectors of society that we document and improve student learning outcomes. and 3) Soon the new information technologies will provide the capability to alter how students learn and how faculty teach. (p. 24)

Influence of Technology

Advancements in technology especially in the area of computer networks provide opportunities supporting reengineering efforts. In the mid 1980s, personal computer (PC) technology began to appear. Personal computers allowed all employees to work directly with technology. Stand-alone PCs, however, had limitations. There was no information exchange and they did not allow people to work together (Tapscott et al., 1993). Local area networks (LANs) allowed better communication among workers, provided more structured work between groups of people over distances, and gave organizations ways of computerizing their operations that would have been expensive with mainframe computers (Gibbs & Brown, 1995, pp. 73-77). Computer networks give colleges the opportunity to improve access to services. Improving access now requires linking schools to the learner instead of schools to schools (J. Malmberg, personal communication, August 4, 1995).

Schools need to think about how to connect their services to the individual student -- not simply to other campuses. By linking to the student, schools will be better able to meet each student's time, pace, and place requirements.

Focus Groups

One way of identifying student needs is through focus groups. "A focus group is typically composed of 7 to 10 participants who are selected because they have certain characteristics in common that relate to the topic of the focus group" (Krueger, 1994, p.6). Dawson, Manderson, and Tallo (1993) state that "a focus group is a group discussion that gathers together people from similar backgrounds or experiences to discuss a specific topic of interest to the researcher" (p. 7). Focus groups have an advantage over other data collection methods such as mail or telephone surveys in their ability to get at peoples attitudes and perceptions (Krueger, 1994, pp. 10-11). Additionally, ideas may be stimulated from the groups interaction (Krueger, 1994, pp. 10-11).

When using focus groups to gather data more is not necessarily better. The number of focus group sessions depends on how much new information is gained from the groups. Typically, if no new information is provided, a researcher need not conduct any more focus groups. This can happen sometimes after two or three sessions (Dawsen et. al., 1993, p. 24). Krueger (1994) reports that a focus group study can consist of anywhere between three and several dozen groups (p. 6). According to Dawson, Manderson, and Tallo (1993), the number of

participants in a focus group is usually between four and twelve (p. 25). Similarly, Krueger says that "a focus group is typically composed of 7 to 10 participants" (p. 6).

Charleston Southern University used focus groups to gather more information about student perceptions of student services. Current surveys did not give enough substantive information about student needs (Kaase & Harshbarger, 1993, p. 285). Kaase and Harshbarger (1993 concluded that:

> Focus groups can overcome the limitations of quantitative designs, such as limited scope of response or profiles of 'average' persons who do not really exist. They can also be used to help design or to supplement quantitative studies. Finally, focus groups can provide meaningful data to researchers, while conveying genuine interest in the perceptions, feelings, attitudes, and ideas of participants. (p. 288)

Lysack and Krefting (1994), found that combining focus groups with questionnaires and key informant interviews at different stages of fieldwork "increased the rigor of the entire research project" (pp. 106-107).

Byers and Wilcox (1988) list the following advantages and disadvantages of focus groups:

> One advantage is the release of inhibition by the participants. A second advantage of focus group data is that it usually contains a wide range of responses. A third advantage of the focus group method . . . is that of being a valuable source of exploratory information when little is known beforehand about the researcher's topic of interest. One disadvantage of the focus group is that . . . controversies may emerge; and the more outspoken members of the group may try to lead the group while those less articulate and less outspoken follow. Participants in the focus group may provide answers which they believe are socially acceptable so as not to appear abnormal or deviant from the other group members. Focus groups may also be very costly. A final disadvantage of the focus group method is that of biased results. (pp. 10-12)

Focus groups can be an effective tool in gathering customer perceptions, however, precautions need to be taken to assure outspoken participants do not dominate the session.

Summary

Nontraditional students make up more than 40% of enrollment (More college freshmen quitting after first year, 1996, p. D1). Registration systems at colleges and universities were typically designed for traditional students and may not meet the demands of nontraditional customers.

Reengineering efforts can be employed to redesign traditional processes. "Reengineering is the processes used tomake sure the college's systems are in service to its clients first, and to the institution second" (Oberg, 1995, p. 1).

Advancements in technology support reengineering efforts. Computer networks give organizations ways of computerising their operations that would have been expensive with mainframes (Gibbs & Brown, 1995, pp. 73-77). Therefor computer networks give colleges and universities the opportunity to connect services to customers to meet their needs.

Determining customer needs can be facilitated through focus groups. Focus groups have an advantage over other data collection methods in their ability to get at peoples attitudes and perceptions (Krueger, 1994, pp. 10-11). When combined with other data collection devices such as questionnaires and key informant interviews the "rigor of the entire research project can be improved" (Lysack and Krefting, 1994, pp. 106-107).

Chapter 3

METHODOLOGY AND PROCEDURES

Procedures

The evaluation problem solving methodology was used for this project. Six procedures were used to complete this evaluation practicum. First, a review of the literature was conducted. Topics related to registration systems, reengineering, technology, and focus groups were reviewed.

Second, criteria were identified by the Administrator of Administrative Services, the Student Services Manager, and the Administrator of Research at LTC from the LTC vision statement on Quality Services. Focus questions, used in the project, were developed by the Administrator of Research based on the criteria.

Third, a sample of students from the market segment of employed adults seeking professional development/changing careers was randomly selected to participate in the project. The significant characteristics of the group were: the participants were 21 years of age or older; were employed either part-time or full-time; were registered in six or fewer credits and were currently enrolled an associate degree course in an Accel program.

Fourth, focus groups were organized by the Student Services Manager and the Administrator of Research at LTC. Invitations were mailed to 25 students inviting them to participate in one of two sessions.

Fifth, the data collected in the focus group sessions were evaluated against the intake functions by a committee consisting

of the administrator of administrative services, student services manager, registration assistant, and the enrollment specialist. The data were analyzed by examining the correlation between the functions in the intake process and the customer demands identified in the focus groups. The descriptive phase of the Quality Function Deployment Process (see Appendix C) was used to conduct the analysis (King, 1989, pp.2-3 & 8-4).

Sixth, recommendations were developed by the committee that examined the data in step 5 and distributed to the Accel Operating Committee and the Accel Instructors group. The recommendations detailed improvements which were identified as a result of the evaluation.

Assumptions

For this project, it was assumed that all participants in the focus groups were working adults. It was also assumed that participants in focus groups were representative of the employed adults seeking professional development/changing careers market segment. Another assumption was that each participant had experienced the traditional registration process within the year previous to their participation in the focus group. A further assumption was that needs of the Accel students are similar to the students in the employed adults seeking professional development/changing careers market segment.

Limitations

The project was limited in that it was specific to Lakeshore Technical College. Another limitation was that only those students currently enrolled at LTC in associate degree courses in

an Accel program were invited to participate in the focus groups. A further limitation is that the participants had to be enrolled in 6 credits or less.

Chapter 4

RESULTS

Six procedures were used to complete this evaluation practicum. First, a review of the literature was conducted. The literature showed that processes at higher education institutions have a tendency to serve the institution rather that the customer (Oberg, 1995) and that there are different customer groups that have different needs (Young, 1981). Pressures in the marketplace are creating a greater awareness of customer needs (Block, 1995) and that nontraditional students are a greater presence on two- and four-year campuses (More college freshmen quitting after 1st year, 1996, p. D1).

Reengineering is a process that focuses on meeting customer needs (Oberg, 1995). It means starting over and getting rid of outdated rules (Hammer & Champy, 1993).

Second, criteria were identified and definitions of each criterion were written by the Administrator of Administrative Services, the Student Services Manager, and the Administrator of Research at LTC based on the LTC vision on quality services (see Appendix D). The criteria were identified based on key words in the quality services vision and were used as the basis for the development of the focus questions and the evaluation of the intake processes. Six criteria were identified from the vision statement. Operational definitions were written to describe the criteria. Table 1 summarizes the criteria and the definitions.

Table 1

Criteria and Operational Definitions

Criteria	Operational Definition
1. Accessible	Capable of being used or seen.
2. Flexible	The capability to adapt to new, different, or changing requirements.
3. Needs based	Something requisite, desirable, or useful to serve as the starting point for action.
4. Defined Processes	To make distinct, clear, or detailed in outline a series of actions or operations to an end.
5. Staffing Plan	To devise, project, or formulate the personnel needed to carry out the assigned tasks in a given work unit.
6. Value to Customer	The relative worth, utility, or importance of a service to those who use the service.

Third, focus questions were developed by the Administrator of Research based on the criteria. The questions were grouped into five categories including (a) opening question, (b) introductory questions, (c) transition questions, (d) key questions, and (e) ending question (Krueger, 1994). The questions were reviewed by the Student Services Manager and the Administrator of Administrative Services. It was felt that students may not draw a distinction between the different areas

in the intake processes. There was also some discussion on the number of questions. Ten questions were initially developed (see Appendix E). One question, "what do you expect to happen after you have helped LTC by being part of this focus group" was thought to not directly relate to the purpose of the project and there was discussion about omittinging it. It was finally decided to keep the question because it would provide an understanding of the participants expectations.

Fourth, students from the market segment of employed adults seeking professional development/changing careers were selected to participate in the project. This is one of four major customer markets identified by Lakeshore Technical College (see Appendix A). Employed adults seeking professional development/changing careers are defined as those persons 21 years and older who are currently working in a job that is not what they like and/or requires additional skills or education to maintain employment. The attributes that describe students in this market segment are (a) 21 years of age or older, (b) employed either part-time or full-time, (c) enrolled in 6 or fewer credits, and (d) enrolled in associate degree or technical diploma courses in an Accel program. A computer listing containing names and addresses of all the students in this market was generated. After looking at the total number of students in this customer market, it was decided to narrow the project to a specific group within this market. This group includes students enrolled in Associate Degree programs offered in a rapid delivery schedule. Six programs are offered in the rapid delivery

schedule at LTC. These include (a) Accounting, (b) Marketing, (c) Marketing: Business to Business, (d) Materials Management, (e) Quality Technician Certificate, and (f) Supervisory Management. Students must be employed to enroll in one of these programs. The student is able to complete the program in approximately two and one-half years. In the rapid delivery format, the courses are sequenced over the entire time period without regard for usual school year scheduling. Instruction in the programs takes advantage of students' prior learning and knowledge, and relevance to the worksite as well as collaborative learning approaches.

The population for the project consisted of the 123 students enrolled in the rapid delivery programs as of January 15, 1996. Invitations were sent to the students by the Student Services Manager two weeks before the first session.

Fifth, two focus group sessions were conducted. Although the sessions were organized by the Student Services Manager, the Administrator of Research conducted the sessions. The sessions were conducted in the evening, starting at 5:00 pm. The first session was held on a Wednesday and the second on a Thursday the following week.

The 5:00 pm start time was chosen because most classes in the Accel program start at 6:00 pm and by conducting the session immediately before class it was believed that it would be more convenient for students to attend. Each session was video taped. A total of 6 students participated in the focus groups. After only two students participated in the first session a follow-up

letter was mailed to the students invited to the second focus group session. Four students did attend the second focus group session. Thank you letters were mailed to each participant after the focus group sessions were held.

Sixth, the data collected in the focus group sessions were correlated against the intake processes. First, needs were identified using the Affinity Process. Next, the descriptive phase of the Quality Function Deployment Process (see Appendix D) was used to correlate the needs against the functions in the intake process (King, 1989, pp.2-3 & 8-4).

The team conducting the correlation included the Administrator of Administrative Services, Students Services Manager, Registration Assistant, and the Enrollment Specialist. The meeting to analyze the input from the focus groups was held two weeks after the last focus group session. Prior to the meeting the Registration Assistant and the Enrollment Specialist viewed the video tape because they did not attend the focus groups sessions.

Before the meeting all the questions were transcribed onto post-it brand note pads to make the grouping of the items easier. An agenda for the meeting is included in Appendix F. It was agreed, to combine all responses from the different questions and analyze as one group. The question "what do you expect to happen after you have helped LTC by being part of this focus group" was omitted from the analysis because it only provided information on what the students expectations were, not on the process.

First the group used the Affinity process to categorize the input into need categories. Six customer needs were identified and are presented in Table 2.

Table 2

Needs of Accel Customers

Accel Customer Needs
1. Simple, reliable and complete communication and information.
2. Timely services.
3. Flexible financial options for services in the bookstore, registration, and financial aid.
4. Simple processes.
5. Access to services, staff and information when needed.

Next, a matrix was developed placing the functions of the intake process on the horizontal axis and the needs on the vertical axis. The needs were then correlated against the intake functions which included include registration, enrollment, financial aid, counseling, and the bookstore. A scale of 9, 3, and 1 was used to describe the strength of the correlation. In determining the correlation symbols were used to provide a visual reading of the point values. Table 3 shows the results of the correlation. The needs are identified by the corresponding number from Table 2.

Table 3

Needs Function Matrix

Needs\ Function	Regis-tration	Enroll-ment	Financial Aid	Counseling	Bookstore
1	o	•	o	o	o
2	o	•	•	o	o
3	o	∆	o	∆	o
4	o	•	•	•	o
5	o	•	o	o	o
Total	15	37	27	19	15

Note. In determining the correlation symbols were used to provide a visual reading for the group conducting the analysis. The symbols and description used to complete the correlation include: • = 9 points - strongly meets the need, o = 3 points - somewhat meets the need, ∆ = 1 point - possibly meets the need.

The results showed that in the functions of enrollment and financial aid are adequately meeting the students needs. The results indicated that the areas of registration, counseling, and bookstore were not adequately meeting the student's needs.

Sixth, recommendations were developed by the team, that analyzed the responses, based on the needs and the results of the evaluation (see Appendix G). Eleven recommendations were developed. Specific recommendations were developed for registration, bookstore, enrollment, and counseling, and some overall recommendations were developed. Although enrollment was found to be meeting customer needs, a recommendation was made to further improve the process. No recommendations were developed

for financial aid. The recommendations were presented to the Accel Operating Committee, which is the student advisory group for the program, and the Accel instructors. No changes were made to the recommendations The final recommendations (see Appendix E) were then submitted to the Student Services Manager to serve as the basis for the development of implementation plans.

Chapter 5

DISCUSSION, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Discussion

Many systems and processes that serve students at colleges and universities were designed with the traditional student in mind. A component of the LTC System of Education is the student intake process which includes the functions of registration, enrollment, financial aid, counseling, and bookstore. Customer demographics and demands have shifted, and the current systems and processes that were designed to meet traditional student needs may be out of alignment with the needs of nontraditional students. Even as far back as 1981 it was found that there were different market segments and that students in those different segments had different needs (Young 1981). If this was known in 1981 why has it taken so long to recognize that there are different market segments with different needs? Block (1995) believes it is because higher education has not experienced pressure from the marketplace (p. 6). It is easy for the processes to lose sight of the customer and focus on the organization (Oberg, 1995).

Five needs were identified from the focus groups including (a) simple, reliable and complete communication and information, (b) timely services, (c) flexible financial options for services in the bookstore, registration, and financial aid, (d) simple processes, and (e) access to services, staff and information when needed. These needs appear to be consistent with the literature.

Recommendations were developed based on the results of the needs/function correlation and the comments from participants in the focus groups (see Appendix G). One recommendation in registration was to allow telephone registration. This would help address the hours of operation issue by not requiring students come to campus to register. For the bookstore course syllabi need to be ready by the start of class. By allowing the bookstore to look at student schedules so they can have more time to purchase the required books. Finally, improving the availability of counselors is recommended.

Even though enrollment was determined to be meeting the needs of students, two recommendations were made. It was felt that communication about registration and payment options at the point of enrollment would help students learn about different alternatives, making registration easier.

Conclusions

Three conclusions were reached as a result of the project. First, overall the intake process at LTC is meeting the needs of the Accel customers. Second, the results showed that enrollment and financial aids are meeting the needs of the Accel students. This was supported by the high scores in the correlation. One participant in the focus group said that "financial aid was very helpful in all financial aid needs. This was typical of the responses about financial aid and enrollment. Several of the responses even mentioned employees in those areas by name in a very positive nature.

Third, the results also showed that the areas of registration, counseling, and bookstore were not adequately meeting the student's needs. The main complaint about the bookstore centered around not having syllabi available when needed. In registration the hours of operation appeared to be a problem and in counseling the availability of counselors was an issue. The students in the Accel program are nontraditional and their needs do stress the current processes.

Implications

The project provides evidence that student needs are not being met by the bookstore, counseling, and registration functions and that needs are being met by the financial aid and enrollment functions. Implementing the recommendations, which are based on customer needs, makes the intake processes more flexible and accessible to student needs.

Lakeshore Technical College has a Total Quality Leadership philosophy which includes customer focus, continuous improvement, and employee involvement. This evaluation of the intake process helped the college determine the needs of current students and also whether those needs were being met. The information from the evaluation was used to establish the direction for system changes based on customer needs. Additionally, the process can be used by other services areas at the college to evaluate their services against customer needs.

Recommendations

Four recommendations were made. It is recommended that implementation plans be developed for each of the recommendations

(Appendix G) identified in the project. Another recommendation is to conduct the same project on the other market segments of the college. It further recommended that current processes be clearly defined and analyzed to determine if they are being followed. Finally, implementation plans should be developed for changing current processes and creating new processes where current processes are followed but are not customer friendly.

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APPENDIXES

Appendix A

Lakeshore Technical College Customer Markets

The following four customer markets have been identified at Lakeshore Technical College.

1. High School Graduates are those who will soon or have graduated from high school; they include 15-20 year olds. Within this grouping are many possible target markets. For example, the Institutional Communications Committee has targeted the 18-20 year old as a target market with a focus on those who did not choose to come to LTC directly.

2. Employed adults seeking professional development/changing careers are those adults 21 years and older who are currently working in a job that is not what they like and/or requires additional education to maintain employment. As with the high school market, various combinations of attributes can be used to help more specifically identify the target market(s) so the program/course design will meet customer needs.

3. Unemployed adults entering or re-entering the work force are those adults 21 years and older who do not have adequate skills to obtain employment in today's market place. Most often those in this market have inadequate basic skills and fears involving entering the workforce and/or school but desire to work.

4. Employer requested educational opportunities for their employees are those working adults whose employers with to have educational opportunities made available to their employees or

require their employees to learn new skills in order to keep their jobs or move up in the organization.

Appendix B

Lakeshore Technical College Strategic Plan

Strategies

1. Lakeshore Technical College will continuously look to reposition LTC programs, courses, and services in serving the initial and continued employment market as employers' needs for employees change. The direction of LTC in repositioning its programs, courses, and services will be to conduct market research of employers, individuals within the community, and future job trends in order to meet changing needs. Activities will include competency-based curriculum, alternative delivery formats, flexible/accessible scheduling, and flexible/accessible systems and services.

2. Lakeshore Technical College will focus on growth activities which are aligned with the LTC mission. The direction of LTC in growth activities will be to improve student retention in programs; enhance distance learning/alternative delivery; create flexible/accessible scheduling; increase initial enrollments; increase efficiencies in delivering programs, courses, and services so that the cost to deliver is far less than the income generated; and use facilities to generate revenue.

Appendix C

Quality Function Deployment

Following are the four phases of Quality Function Deployment as described by King (1989, p. 2-1).

1. The organization: During this phase management selects the product or service to be improved, the appropriate interdepartmental team and defines the focus of the QFD study.

2. The descriptive phase: During this phase the team defines the product or service from several different directions: customer demands, functions, parts, reliability, cost, etc.

3. The breakthrough phase: The team selects areas for improvement and finds ways to make them better through new technology, new concepts, better reliability, cost reduction, etc. and monitors the bottleneck engineering process.

4. The implementation phase. The team defines the new product and how it will be manufactured.

The descriptive phase (King, 1989, p.8-4) includes the following steps:

1. List the functions of the process in the rows of a matrix.

2. List the customer demands in the columns of a matrix.

3. Plot the correlations between customer demands and functions using a double circle, or 9, for strong correlation; a single circle, or 3, for some correlation; and a triangle, or 1, for possible correlation.

4. Total the values of the functions.

5. Convert the absolute function numbers to percentages by dividing the total into each individual item.

Appendix D

Lakeshore Technical College Quality Service Vision

Quality Service Vision Statement

Lakeshore Technical College believes that quality services are accessible, flexible, and needs based. Quality services will incorporate defined processes, follow a staffing plan, and be measured by their value to the students, staff, employers, and community.

Appendix E

Focus Group Questions

The following questions were used in the focus groups.

Opening Question

1. Why are you taking the time to help LTC improve its registration process?

Introductory Questions

2. How do you feel about participating in this activity?

3. What do you expect to happen after you have helped LTC by being part of this focus group?

4. What does accessible and flexible service mean to you?

Transition Questions

5. How has registration for the courses you wanted/needed been a positive experience?

6. How has registration for the courses you wanted/needed been a negative experience?

Key Questions

7. What should LTC stop doing that would make registering for LTC courses better?

8. What would LTC start doing that would make registering for LTC courses better?

9. What should LTC keep doing that would make registering for LTC courses better?

Ending

10. If you had the power to change one thing in LTC's registration process, what would it be?

Appendix F

Agenda from the Analysis Meeting

The following agenda was used to structure the meeting at which the responses from the focus groups was analyzed.

1. Review Project.
2. Discuss Analysis Plan.

   Customer demand/functions matrix.
3. Complete analysis.
   a. Compare responses and describe needs.
   b. Compare against functions.
   c. Total points.
4. Evaluation of Functions.
5. Make recommendation.

   Identify areas of opportunity.

Appendix G

Recommendations

Based on the Needs/Function matrix the following recommendations were developed.

Registration

1. Allow telephone registration.
2. Change receipt to a smaller size and make more user friendly.
3. Allow customers to register, then send an invoice for the fees.
4. Develop a process to reduce the time it takes to get students their grade reports.
5. Develop an on-line registration system.

Enrollment

1. Develop a communication for registration and payment options.
2. Have a student services member attend an Accel workshop to find out what is being communicated.

Financial Aid

No specific recommendations were made.

Counseling

1. Improve the availability of counselors.

Bookstore

1. Have course materials available when needed.
2. Allow bookstore to look at students' schedule so they can buy the required book.

Overall

1. Use electronic mail to communicate with service areas.

2. Allow remote access to services and information.

3. Have staff in Accel areas available to answer questions between the hours of 4:00 pm and 5:30 pm when customers get off work.